

S/N: 09/831,944

PATENT

configured to fasten the performing component to said tissue such that the radiance source and detector are facing, contiguous with and compress the tissue;

wherein said one surface of said performing component protrudes from the plane of the adhering component surface in the direction of the compressed tissue thereby to exclude external light and direct light from the radiance source; and

wherein, the adhering component fastens the performing component to the tissue to the extent that the detector only receives rays which reflected from within the tissue

**REMARKS**

Applicant has carefully studied the outstanding Office Action. The present response is intended to be fully responsive to all points of rejection raised by the Examiner.

Claims 1-19, 21-28 and 3-35 are pending in the application. Claims 1, 8 and 13 have been amended. Claims 7, 11, 19, 24 and 25 have been cancelled. Reconsideration of the application is respectfully requested.

**Allowed Claims**

Applicants would also like to gratefully acknowledge the Examiner's indication that claims 33-35 are allowable

**Double Patenting**

Claims 11, 24 and 25 have been cancelled. Thus the double patenting objection is now moot

**Claim Rejections**

**35 U.S.C. §102 Rejections**

Claims 1-6, 10, 13-18, 20-23 and 26-32 stand rejected under 35 U.S.C. §102(b) as being anticipated by Goodman et al (US Patent no: 4,630,014).

Claims 1, 4, 13, 14, 22, 23 and 27-28 stand rejected under 35 U.S.C. §102(b) as being anticipated by Muz (US Patent no: 5,054,488).

Claims 1-4, 7, 10, 12-16, 19 and 27-28 stand rejected under 35 U.S.C. §102(b) as being anticipated by Ogawa et al (US Patent no: 5,427,093).

Claims 1-9, 13-21 and 27-28 stand rejected under 35 U.S.C. §102(e) as being anticipated by Rafert et al (US Patent no: 5,817,008).

Applicants respectfully traverse this rejection in view of the remarks that follow.

Claim 1 has been amended to include the limitation of claim 7 and system claim 13 has been amended to include the limitation of claim 19

Claim 1 (as amended) recites:

"A sensor, for radiance based diagnostics, comprising a performing component having at least one radiance source for radiating a tissue and at least one detector for detecting rays reflected from the tissue; and an adhering component which, *inter alia*, fastens the performing component to and compresses the tissue to the extent that the detector only receives rays which are reflected from within the tissue and wherein one surface of the performing component protrudes from the plane of the adhering component surface in the direction of the compressed tissue"

Claim 13 (as amended), is a system for radiance based diagnostics having a sensor and an electronic circuit in communication with the sensor components. The sensor comprises the recited elements of claim 1.

Claim 27 is a method claim based on the sensor of claim 1 and claim 28 is a method claim based on the sensor of claim 13.

According to the Office Action, both Goodman et al ('014) and Muz ('488) do not disclose or suggest a "performing component protrudes from the plane of the adhering component surface in the direction of the tissue" and are thus the rejections based on Goodman et al ('014) and Muz ('488 are now moot.

According to the Office Action, citing column 2, Ogawa et al ('093) "teaches an oximeter probe with emitters and detectors which protrude through adhesive tape for making good contact with the subject's skin". However, the Examiner is respectfully referred to Fig. 3 of Ogawa, described in column 2, which shows that the detector receives reflected light from the tissue but it is clear from the configuration of Fig. 3 that the detector may also receive light from other sources and directly from the LED (radiation source) itself.

Ogawa does not disclose or suggest the combination of a detector which only receives rays which are reflected from within the tissue and wherein one surface of the performing component protrudes from the plane of the adhering component surface in the direction of the tissue thereby to exclude external light and direct light from the radiance source. Furthermore, Ogawa does not disclose or suggest compressing the tissue in order to exclude light (such as direct transmitted light and external light from other sources) other than light reflected from the tissue.

In contrast, the present invention, as illustrated in Figs. 3A and 3B, is configured such that performing component (31), which protrudes from the plane of the adhering component (33), presses into the tissue (35) forming an indentation (35'), thereby preventing the performing component (31) from receiving light from other sources and directly from the radiation source

Rafert et al ('008) describes a sensor which includes a light source assembly for transilluminating the patient's body portion and a light detector assembly for measuring transmitted light. Rafert et al ('008) does not disclose or suggest detecting reflected light and does not disclose or suggest the feature the present invention of compressing the tissue in order to ensure that only light reflected from the tissue is detected and that external light and direct light from the radiance source are excluded from being detected by the detector

Thus, Applicants respectfully submit that neither of the prior art cited by the Examiner, that is, Goodman et al ('014), Muz ('488), Ogawa et al ('093) and Rafert et

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al ('008) anticipate Applicant's amended claims 1 and 13 since they do refer to nor show a detector which only receives rays which are transmitted through or reflected from within the tissue and excludes external light and direct light from the radiance source

For similar reasons, the cited prior art does not anticipate Applicants' claims 27 and 28, which are method claims based on the sensor of claim 1 and claim 13, respectively.

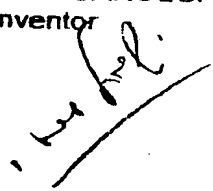
In addition, since claims 2-6, 8-10 and 12 depend from independent claim 1 and claims 14-18, 21-23 and 26 depend from independent claim 13, they cannot be anticipated for the same reason.

Should the Examiner have any question or comment as to the form, content or entry of this Amendment, the Examiner is requested to contact the undersigned at the telephone number below. Similarly, if there are any further issues yet to be resolved to advance the prosecution of this application to issue, the Examiner is requested to telephone the undersigned counsel.

In view of the above amendments and remarks, it is respectfully submitted that the claims are patentable over the art of record and are now in condition for allowance. Prompt notice of allowance is respectfully solicited.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE IN THE CLAIMS

1. (Twice Amended). A sensor for radiance based diagnostics, comprising:
- a performing component comprising:
    - at least one radiance source for radiating a tissue; and
    - at least one detector for detecting rays [emitted from said radiance source] reflected from said tissue; and
    - wherein one surface of said performing component faces said tissue; and
  - an adhering component having one surface facing the tissue; said adhering component [capable of fastening] configured to fasten the performing component to [a] said tissue such that the radiance source and detector are facing, [and ]contiguous with and compress the tissue;
  - wherein said one surface of said performing component protrudes from the plane of the adhering component surface in the direction of the compressed tissue thereby to exclude external light and direct light from the radiance source, and
  - wherein, when operative, the adhering component fastens the performing component to the tissue to the extent that the detector only receives rays which are [transmitted through or ]reflected from within the tissue and whereby external light and direct light from the radiance source are excluded.
- 8 (Once Amended). A sensor according to claim [7] 1 wherein the performing component further comprises a partition in between the radiance source and the detector.

13 (Twice Amended). A system for radiance based diagnostics comprising:

a sensor; and

an electronic circuit in communication with the sensor components and capable of controlling the sensor components operation;

wherein the sensor comprises:

a performing component comprising at least one radiance source for radiating a tissue and at least one detector for detecting rays [emitted from said radiance source] reflected from said tissue and wherein one surface of said performing component faces said tissue; and

having one surface facing the tissue; said adhering component [capable of fastening] configured to fasten the performing component to [a] said tissue such that the radiance source and detector are facing, [and] contiguous with and compress the tissue

wherein said one surface of said performing component protrudes from the plane of the adhering component surface in the direction of the compressed tissue thereby to exclude external light and direct light from the radiance source; and

wherein, the adhering component fastens the performing component to the tissue to the extent that the detector only receives rays which [are transmitted through or] reflected from within the tissue.